### **BERNARD F. ERLANGER**

### **CURRICULUM VITAE**

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## **EDUCATION**

B.S. in Chemistry, City College of NY (highest honors)

M.A. in Chemistry, New York University

Ph.D. in Biochemistry, Columbia University

## PROFESSIONAL BACKGROUND

- 1994-1995-Chairman, Search Committee for a Chairman of Department of Pharmacology
- 1992- Pres.- Member, Science and Technology Committee, Columbia University
- 1992 Director, NIH Training Grant, Graduate Training in Nutrition Sciences
- 1989 Invited Expert Analyst Biochemistry and Molecular Biology Edition of Chemtracts
- 1988-1994.- University Policy Committee on Science and Technology-1996, Chair.
- 1988-Pres.- Doctoral Program Subcommittee in Nutrition
- 1987-1994.- Steering Comm. Integrated Grad. Program in Cellular, Molecular and Biophysical Studies.
- 1985-1995. Co-Director, National Inst. of Health Medical Scientist Training Program.
- 1985-1988 National Inst. of Health Neurology C AHR Study Section
- 1985-1986 Acting Chairman, Dept. of Microbiology, Columbia Univ.
- 1983-1985 Vice Chairman, Dept. of Microbiology, Columbia Univ.
- 1982 Organizer and Co-Director of NATO Advanced Studies Institute Colloquium on "Molecular Models of Photo-responsiveness," in San Miniato (Pisa, Italy), Aug. 29-Sept.8.
- 1981-1991- Associate Editor, Proc. Soc. Exptl. Biol. and Med.
- 1979 Scholar of the American Cancer Society, in laboratory of S. Avrameas, Institut Pasteur, Paris, France
- 1978 (1 month) Visiting Scientist, Institute of Cell Biology, Shanghai, People's Republic of China
- 1977-1978 Acting Chairman, Dept. of Microbiology, Columbia Univ.
- 1978 Member, Conference Committee, N.Y. Academy of Sciences
- 1976-1980 Advisory Editor, Immunochemistry

#### **HONORARY SOCIETIES AND HONORS**

Phi Beta Kappa
Fulbright Scholar
Guggenheim Fellow
American Cancer Society Scholar
Sigma Xi
American Men of Science
Who's Who in America
New York Heart Association Sigma Alpha Mu/Gamma Chapter Award
Who's Who in the World
Medal, 600<sup>th</sup> Anniversary of Copernican Medical Faculty of Jagiellonian University,
Cracow, Poland
Townsend Harris Medal, Alumni Association, City College of New York
Distinguished Service Award, Columbia College of Physicians and Surgeons

## PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
American Association of Immunologists
American Chemical Society
American Society of Biological Chemists
American Society for Cell Biology
American Society for Photobiology
Enzyme Club
The Harvey Society

# **MISCELLANEOUS**

Paper No. 33 - Designated as a "Citation Classic" by Current Contents. Also listed as one of the 101 most cited articles of the 1960's (Current Contents 35, 5 (1979) Aug. 27.

Paper No. 16 - Designated as a "Citation Classic" by Current Contents. Paper No. 42 - Designated as a "Citation Classic" by Current Contents.

Guest, Copernican Medical Academy of the Jagiellonian University in Cracow, Poland, September 1979 - Presented medal of 600<sup>th</sup> Anniversary of Medical Faculty.

# **Invited Symposium Speaker**

Symposium on Nucleic Acid Photochemistry, 6<sup>th</sup> Annual Meeting of the American Society of Photobiology, Vermont,1978

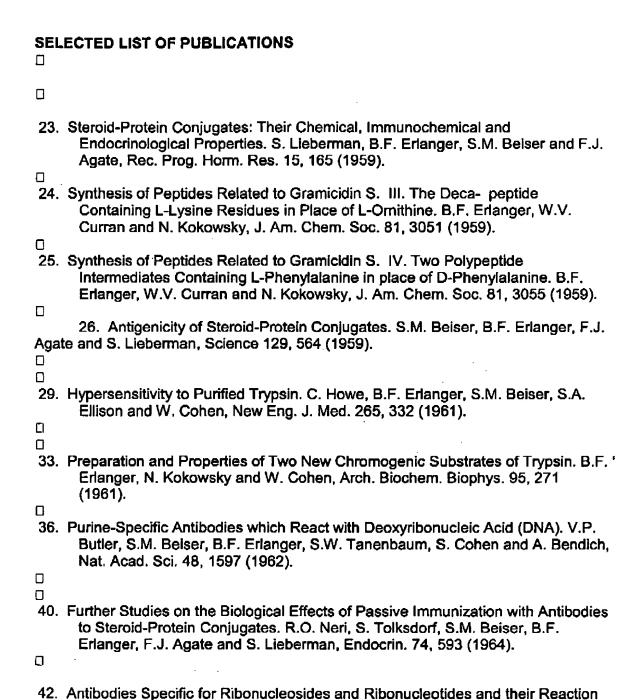
Symposium on Photochromic Pigments and Photomorphogeneis, 6<sup>th</sup> Annual Meeting of the American Society of Photobiology, Vermont, 1978

Gordon Conference on Drug Carriers in Biology and Medicine, New Hampshire, 1978

- Symposium on Photoregulation Rhythms, Eighth International Congress on Photobiology, Strasbourg, France, 1980
- EMBO Workshop: Immunological Aspects of Nuclear Components, Port fino, Italy, 1980
- Co-Director of NATO Advanced Study Institute: Molecular Models of Photoresponsiveness, S. Miniato, Pisa (Italy), Aug. 29-Sept. 8, 1982
- Application of Biological Markers for Carcinogen Testing, Bethesda, Maryland, 1982 Monoclonal and Anti-idiotypic Antibodies as Probes on Receptor Structure and
  - Function, 67th Annual Meeting of the FASEB, Chicago, Illinois, 1983
- International Workshop on Immune Assay of Nuclear Antigens Relevant to Carcinogenesis and Chemotherapy, Patterson Laboratories, Manchester, England, 1982
- INSERM Workshop on Nuclear Antigens and Carcinogenesis. Immunochemistry of DNA and Chromatin, Talloires, Lake Annecy, France, May 22-25, 1984
- 9<sup>th</sup> International Subcellular Methodology Forum, University of Surrey, Guildford (New London), U.K., Keynote Speaker, Sept. 4-6, 1984
- International Symposium on the Molecular Basis of Nerve Activity, Berlin-Dahlem, Oct.11-13,1984
- Symposium on the "Immunological Basis of Autoimmunity," Institut Pasteur, Paris, France, May 2-3, 1985.
- International Conference on Autoimmunity, New York Academy of Sciences, June 17-19, 1985.
- International Conference on "Idiotypes" Oklahoma City, Oklahoma, October 21-22, 1985.
- International Symposium on "Antibodies: Structure, Synthesis, Function and Immunological Intervention in Disease." University of So. Florida, Clearwater, FL., Feb. 19-21, 1986.
- Seventh International Conference on Myasthenia Gravis, New York Academy of Sciences, Mar. 4-7, 1986.
- Symposium at the International School of Pure and Applied Biostructure, in Erice, Italy, June, 1986.
- Symposium on Photocarcinogenesis, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD, June 17-19, 1987.
- Symposium on "Immunomodulation: The Role of IGIV", Boston, Mass., October 6-8, 1988.
- Third F.E.B.S. International Summer School on Immunology, Ionian Village, Greece.September 19-29, 1988.
- Program in Molecular and Cell Biology, "Internal Image Antibodies for the Study of Receptors." University of Maryland, College Park, April 25, 1990.
- 12<sup>th</sup> Annual Dean's Day Symposium, "Genes, Molecules and Disease: Anti-Antibodies and Autoimmune Diseases." Columbia University, May 11, 1990.
- Clinical Ligand Assay Society, New England Chapter. Lecture on Anti-DNA Antibodies, Cambridge, MA, June 1, 1990.
- Meeting of The Biochemical Society, September 4-7, 1990. University of Dublin, Trinity College, Dublin, Ireland. Colloquium: "Strategies for Studying Membrane Proteins of the Nervous System."

Screening Methods for the Identification of Anti-HIV Compounds Employing a Cyclosporine-Specific Monoclonal that Cross-Reacts with HIV-1 P24. Patent Number 6,177,253 B1 Date of Patent: Jan.23,2001.

Methods Relating to Immunogenic Dextran-Protein Conjugates. Wang, Erlanger and Kabat, Patent Number 6,287,568. Date of Patent: Sept. 11, 2001



with DNA. B.F. Erlanger and S.M. Beiser, Proc. Nat. Acad. Sci. 52, 68 (1964).

- 45. Purine- and Pyrimidine-Specific Antibodies: Precipitation with Denatured Deoxyribonucleic Acid. S.M. Beiser, S.W. Tanenbaum and B.F. Erlanger, Nature 203, 1381 (1964).
- 50. A New Test for the Quantitative Determination of Chymotrypsin, Chymotrypsin-like Enzymes and their Inhibitors. C.E. Blackwood, B.F. Erlanger and I. Mandl, Anal. Biochem. 12, 125 (1965).
- 51. Purification and some Properties of Anti-testosterone Antibodies.P. Zimmering, B.F. Erlanger and S.M. Beiser, J. Immunol. 95, 262 (1965).
- 52. Specific and Reversible Inactivation of Pepsin. B.F. Erlanger, S.M. Vratsanos, N.H. Wassermann and A.G. Cooper, J. Biol. Chem. 240, PC3447 (1965).
- 53. The Inactivation of Chymotrypsin by Diphenylcarbamyl Chloride and its Reactivation by Nucleophilic Agents. B.F. Erlanger, A.G. Cooper and W. Cohen, Biochem. 5, 190 (1966).
- 54. Antibodies that React with Nucleic Acids. S.M. Beiser and B.F. Erlanger, Symposium on Macromolecules, in Cancer Res. 26, 2012 (1966). □
- 57. Digoxin-Specific Antibodies. V.P. Butler, Jr., B.F. Erlanger and J. Chen, Abstract, 58<sup>th</sup> Annual Meeting of the American Society for Clinical Investigation. J. Clin. Inv. 45, 993 (1966).
- 58. Cyclization of S-(p-Bromophenacyl)-L-Cysteine as Observed by Nuclear Magnetic Resonance Spectroscopy. J.A. Glasel, N.H. Wassermann, B.F. Erlanger and S.M. Vratsanos, Arch. Biochem. Biophys. 115, 237 (1966).
- 59. Nuclear Reaction with Antinucleoside Antibodies. W.J. Klein, Jr., S.M. Beiser and B.F. Erlanger, Fed. Proc. 25, 372 (1966).
- 61. Purine and Pyrimidine Nucleoside Specific Antibodies: Effect on In Vitro Priming Ability of DNA. S.S. Wallace, B.F. Erlanger and S.M. Beiser, Abstract, 2<sup>nd</sup> International Biophysics Congress, 1966, p. 171.
- 64. The Preparation of Steroid-Protein Conjugates for the Elicitation of Antihormonal Antibodies. B.F. Erlanger, S.M. Beiser, F. Borek, F. Edel and S. Lieberman, Meth. in Immunol. and Immunochem. Vol. 1, 144 (1967).
- 65. Preparation of Purine- and Pyrimidine-Protein Conjugates. S.M. Beiser, B.F. Erlanger and S.W. Tanenbaum, Methods in Immunology and Immunochemistry, Vol. 1, 180 (1967), Academic Press, New York. □

- 68. Binding of Steroids to Steroid-Specific Antibodies. P. Zimmering, S. Lieberman and B.F. Erlanger, Biochem. 6, 154 (1967).
- 69. Nuclear Fluorescence Employing Antinucleoside Immunoglobulins. W.J. Klein,Jr., S.M. Beiser and B.F. Erlanger, J. Exp. Med. 125, 61 (1967). □
- 73. Anti-Pyrlmidine Antibodies and their Reaction with DNA's of Varying Base Composition. A.G. Garro, B.F. Erlanger and S.M. Beiser, Fed. Proc. 26, 874 (1967).
- 74. Estimation of Steroid Hormones by an Immunochemical Technique. S.M. Beiser and B.F. Erlanger, Nature 214, 1044 (1967).
- 75. On the Mode of Action of Penicillin. B.F. Erlanger and L. Goode, Nature 213, 183 (1967).
- 76. Hapten-Protein Conjugates: Methodology and Application. S.M. Belser, V.P. Butler and B.F. Erlanger, Textbook of Immunopathology, Vol. 1, 15 (1968), Grune and Stratton, Pubs.
- 77. Purine- and Pyrimidine-Protein Conjugates. S.M. Beiser, S.W. Tanenbaum and B.F. Erlanger, Methods in Enzymology XII, Part B, 889 (1968), Grossman and Moldave, eds., Academic Press, New York.
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- 79. Effect of Pyrimidine Nucleoside-Specific Antibodies on In Vitro Priming Ability of DNA. S. S. Wallace, B.F. Erlanger and S.M. Beiser, Fed. Proc. 27, 265 (1968).
- 80. Immunofluorescent Studies of Lupus Nephritis in Man. B.C. Seegal, L. Accinni, G.A. Andres, S.M. Beiser, C. Bruni, C.L. Christian, B.F. Erlanger and K.C. Hsu, Fed. Proc. 27, 544 (1968).
- 81. Specificity in the Reaction between Anti-Pyrimidine Nucleoside Antibodies and DNA. A.G. Garro, B.F. Erlanger and S.M. Beiser, Nucleic Acids in Immunology, Springer-Verlag, Pubs., 1968, p. 47.
- 83. Antibodies Specific for Purine and Pyrimidine Nucleosides: Effect on In Vitro Priming Ability of DNA. S.S. Wallace, B.F. Erlanger and S.M. Beiser, J. Mol. Biol. 43, 41 (1969).
- 84. Immunologic Studies of Autoimmune Disease in NZB/NZW F1 Mice. I. Binding of Fluorescein-labeled Antinucleoside Antibodies in Lesions of Lupus-like Nephritis. B.C. Seegal, L. Accinni, G.A. Andres, S.M. Beiser, C.L. Christian, B.F. Erlanger and K.C. Hsu, J. Exp. Med. 130, 203 (1969).

  S.M. Beiser and B.F. Erlanger, J. Immunol. 103, 1157 (1969).

87. Photoregulation of Biological Activity by Photochromic Reagents. II. Inhibitors of Acetylcholinesterase. J. Bieth, S.M. Vratsanos, N.H. Wassermann and B.F. Erlanger, Proc. Nat. Acad. Sci. 64, 1103 (1969).

88. Photoregulation of Biological Activity by Photochromic Reagent . W.J. Deal, B.F. Erlanger and D. Nachmansohn, Proc. Nat. Acad. Sci. 64, 1230 (1969).

89. Pyrimidine-Specific Antibodies: Reaction with DNA of Differing Base Composition. A.J. Garro, B.F. Erlanger and S.M. Beiser, Bact. Proc. 1969, p.45.

- 92. Localization of Fluorescein-labeled Antinucleoside Antibodies in Glomeruli of Patients with Systemic Lupus Erythematosus Nephritis. G.A. Andres, L. Accinni, S.M. Beiser, C.L. Christian, G.A. Cinotti, B.F. Erlanger, K.C. Hsu and B.C. Seegal, J. Clin. Invest. 49, 2106 (1970).
- 93. Operational Normality of a-Chymotrypsin Solutions by a Sensitive Potentiometric Technique using a Fluoride Electrode. B.F. Erlanger and R. Sack, Anal. Biochem. 33, 318 (1970).
- 94. Photoregulation of Biological Activity by Photochromic Reagents. IV. A Model for Diurnal Variation of Enzymic Activity. J. Bieth, N.H. Wassermann, S.M. Vratsanos and B.F. Erlanger, Proc. Nat. Acad. Sci. 66, 850 (1970).
- 96. Antibodies to Nucleic Acids. Immunochemical Studies on Dinucleoside Phosphate- Protein Conjugates. S.S. Wallace, B.F. Erlanger and S.M. Beiser, Biochem. 10, 679 (1971).
- 97. Pyrimidine-Specific Antibodies: Reaction with DNA's of Differing Base Compositions. A.J. Garro, B.F. Erlanger and S.M. Beiser, J. Immunol. 106, 442 (1971).
- 98. Investigation of the Active Center of Trypsin using Photochromic Substrates M.A. Wainberg and B.F. Erlanger, Biochem. 10, 3816 (1971).
- 99. Selective Inhibition of Transformed Cells in Tissue Culture by Anti-Thymidine Antibodies. D.S.P. Liebeskind, K.C. Hsu, B.F. Erlanger and S.M. Beiser, Nature 234, 127 (1971).
- 100. Immunochemical Detection of Minor Bases in Nucleic Acids. D.L. Sawicki, B.F. Erlanger and S.M. Beiser, Science 174, 70 (1971).
- 101. Photochromic Activators of the Acetylcholine Receptor. E. Bartels, N.H. Wassermann and B.F. Erlanger, Proc. Nat. Acad. Sci. 68, 1820 (1971). □

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- 103. Radioimmunochemical Studies on Nucleoside-Specific Antibodies using lodinated DNA. B.J. Rosenberg, B.F. Erlanger and S.M. Beiser, J. Immunol. 108, 271 (1972).
- 104. Nucleic Acid-Reactive Antibodies Specific for Nucleosides and Nucleotides. B.F. Erlanger, D. Senitzer, O.J. Miller and S.M. Beiser, Vth Karolinska Symposium, Acta endocrinologica, Supplement Number 168 (1972), p. 206.
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- 107. Nucleic Acid Structures as Antigenic Determinants. S.M. Beiser and B.F. Erlanger, 3<sup>rd</sup> International Convocation on Immunology, Buffalo, N.Y., 1972, pp. 106-117 (1973).
- 108. Chromosome Structure as Revealed by a Combined Chemical and Immunochemical Procedure. R.R. Schreck, D. Warburton, O.J. Miller, S.M. Beiser and B.F. Erlanger, Proc. Nat. Acad. Sci. USA 70, 804-807 (1973).
- 109. Principles and Methods for the Preparation of Drug Protein Conjugates for Immunologic Studies. B.F. Erlanger, Pharmacol. Rev. 25, 271-280 (1973).
- 110. Allosteric Activation of Chymotrypsin-Catalyzed Hydrolysis of Specific Substrates. B.F. Erlanger, N.H. Wassermann and A.G. Cooper, Biochem. Biophys. Res. Comm. 52, 208-215 (1973).
- Photoregulation of Biological Activity by Photochromic Reagents. Inactivators of Acetylcholinesterase. J. Bieth, S.M. Vratsanos, N.H. Wassermann, A.G. Cooper and B.F.Erlanger, Biochem. 12, 3023-3027 (1973).
- 112. Specific Binding of Ribonucleic Acid by Anti-adenosine Antibodies. B.J. Rosenberg, B.F. Erlanger and S.M. Beiser, Biochem. 12, 2191-2197 (1973).
- 113. Immunofluorescent Studies of Chromosome Banding with Antinucleoside Antibodies. O.J. Miller, R.R. Schreck, S.M. Beiser and B.F. Erlanger, Nobel Symposium, 1973.
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- 115. Immunoreactivity to Antinucleoside Antibodies in X-Irradiated HeLa Cells. D.

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- 117. Antibodies to Insect C16-Juvenile Hormone R.C. Lauer, P.H. Solomon, K. Nakanishi and B.F. Erlanger, Experientia 30, 588-590 (1974).
- 118. Antibodies to the Codons ApApA, ApApC and ApUpG R. D'Alisa and B.F. Erlanger, Blochem. 13, 3575-3579 (1974).
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- 120. An Enzyme Immunoassay of Antibody Specific for Adenosine using B-Galactosidase R.C. Lauer and B.F. Erlanger, Immunochem. 11, 533-536 (1974).
- 121. The Use of Antinucleoside Antibodies to Probe the Organization of Chromosomes Denatured by Ultraviolet Irradiation R.R. Schreck, B.F. Erlanger and O.J. Miller, Exp. Cell Res. 88, 31-39 (1974).
- 122. Human Chromosome Structure as Revealed by an Immunoperoxidase Staining Procedure B.W. Lubit, R.R. Schreck, O.J. Miller and B.F. Erlanger, Exp. Cell Res. 89, 426 (1974).
- 123. Use of Antibodies to Nucleosides and Nucleotides in Studies of Nucleic Acid in Cells B.F. Erlanger, W.J. Klein, Jr., V.G. Dev, R.R. Schreck and O.J. Miller, Methods in Enzymology, Vol. XL, Academic Press, N.Y., 1975, p. 302.
- 124. Interstitlal Immune Complex Nephritis in Patients with Systemic Lupus Erythematosus J.R. Brentjens, M. Sepulveda, T. Ballah, C. Bentzel, B.F. Erlanger, C. Elwood, M. Montes, K.C. Hsu and G.A. Andres, Kidney International 7, 342-350 (1975).
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- 126. Immunochemical Probes of Human Chromosome Organization O.J. Miller and B.F. Erlanger, in Pathobiology Annual, Vol. 5, (H.L. loachim, M.D., ed.), Appleton-Century-Crofts, N.Y., 1975, pp. 71-103.
- 127. Chromosome Markers in Mus musculus: Differences in C-Banding between the Subspecies M.m. musculus and M.m. molossinus V.G. Dev, D.A. Miller, R. Tantravahi, R.R. Schreck, T.H. Roderick, B.F. Erlanger and O.J. Miller, Chromosoma (Berlin) 53, 335-344 (1975).

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Butler and B.F. Erlanger, Textbook of Immunopathology, Vol. I, Second Ed.

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- 142. Binding of Antinucleoside Antibodies Reveals Different Classes of DNA in the Chromosome of the Kangaroo Rat (Dipodomys ordii). R.R. Schreck, B.F. Erlanger and O.J. Miller, Exp. Cell Res. 108, 403–404 (1977).
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- 148. Antibodies to Poly d(A-T) and their Reactions with Oligonucleotides and Nucleic Acids. B.W. Lubit and B.F. Erlanger, Immunochem. 15, 663-671 (1978).
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